

REMARKS

Following entry of the foregoing amendments, claims 26 and 29 to 43 will be pending in the application. Claims 26 and 29 to 43 have been amended herein. No claims have been canceled, and no new claims have been added. Support for the amendments is found throughout the specification as originally filed, and the amendments thus do not introduce new matter into the application.

Applicant respectfully requests reconsideration of the rejections of record in view of the foregoing amendments and the following remarks.

Alleged Indefiniteness

Claims 26, 30 to 36, and 38 to 43 have been rejected under 35 U.S.C. § 112, second paragraph as allegedly indefinite. The Office asserts that the phrases “one glutamine residue at position 16, 30, 31, or 36” and “at least two glutamine residues at positions 16, 24, 30, 31, or 36” in claims 26 and 36, respectively, are indefinite because it is unclear whether the recited positions refer to positions in the parent polypeptide or the synthetic analog. Without conceding the correctness of the assertion, and to advance prosecution, claim 26 has been amended to recite “at least one glutamine residue at position 16, 30, 31, or 36 of the parent human growth hormone releasing hormone” and claim 36 has been amended to recite “at least two glutamine residues at positions 16, 24, 30, 31, or 36 of the parent human growth hormone releasing hormone.” The rejection has thus been obviated, and applicant accordingly, respectfully requests withdrawal thereof.

Alleged Lack of Written Description

A. Claims 30, 34, 35, 38, 42, and 43 have been rejected under 35 U.S.C. § 112, first paragraph as allegedly failing to comply with the written description requirement. The Office asserts that the amendments made in the reply filed August 21, 2006 in response to the official action dated May 31, 2006 introduced new matter into the specification. Applicant respectfully traverses the rejection because the amendments at issue did not introduce new matter into the specification due to the fact that those skilled in the art would understand that

applicant was in possession of the subject matter recited in the amended claims at the time the application was filed.

“The purpose of the adequate written description requirement is to ensure that the inventor had possession of the claimed subject matter at the time the application was filed. If a person of ordinary skill in the art would have understood the inventor to have been in possession of the claimed invention at the time of filing, *even if every nuance of the claims is not explicitly described in the specification*, then the adequate written description requirement is met.” *In re Alton*, 76 F.3d 1168, 1175, 37 U.S.P.Q.2d 1578, 1584 (Fed. Cir. 1996)(emphasis added).

A patent application need not describe a claimed invention in *ipsis verbis* to comply with the written description requirement. “[A]ll that is required is that it reasonably convey to persons skilled in the art that, as of the filing date thereof, the inventor had possession of the subject matter later claimed by him.” *In re Edwards*, 568 F.2d 1349, 1351-1352 (C.C.P.A. 1978)(citations omitted). To determine whether a specification contains adequate written description of the claimed subject matter, the critical question, therefore, is not whether literal description of the claimed subject matter is present in the specification, but, rather, whether review of the specification would convey the claimed subject matter to those having skill in the art. *Id.*

It would be readily apparent to those skilled in the art, upon review of the specification, that applicant was in possession of the full scope of the subject matter recited in the claims as amended herein at the time the application was filed. Claims 30 and 38 as presently amended recite methods of claims 26 and 36, respectively, in which the synthetic analog has increased hydrophilicity and electrophoretic mobility relative to that of the parent polypeptide, and the specification as originally filed describes such methods. For example, the specification states that the “analog in accordance with the present invention...has increased hydrophilicity and electrophoretic mobility compared to the parent drug” (page 8, lines 18 to 22). Accordingly, upon review of the specification, those skilled in the art would readily appreciate that applicant was in possession of methods of claims 26 and 36 in which the synthetic analog has increased hydrophilicity and electrophoretic mobility relative to that of the parent polypeptide.

Claims 34 and 42 as amended herein recite methods of claim 26 and 36, respectively, in which the synthetic analog is provided in the form of an anionic donor reservoir formulation for delivering the synthetic analog through the body surface by electrotransport, and the formulation has a pH in the range of about 3.5 to about 8. Claims 35 and 43 as amended herein recite methods of claims 34 and 42, respectively, in which the formulation has a pH in the range of about 5 to about 6. The specification as originally filed describes such methods. For example, page 8, line 27 to page 9, line 5 of the specification describe methods in which the synthetic analog is provided in the form of an anionic donor reservoir formulation and the formulation has a pH in the range of about 3.5 to about 8, preferably in the range of about 5 to about 6. Those skilled in the art would thus appreciate that applicant was in possession of the subject matter recited in amended claims 34, 35, 42, and 43 at the time the application was filed.

Because the specification provides adequate written description of the subject matter recited in amended claims 30, 38, 34, 35, 42, and 43 for the reasons discussed above, applicant respectfully requests withdrawal of the rejection.

B. Claims 26 and 29 to 43 have been rejected under 35 U.S.C. § 112, first paragraph for allegedly failing to comply with the written description requirement. The Office asserts that part (a) of claims 26 and 36 recites a product-by process limitation and, as such, the only structural requirement of the synthetic analogs of claims 26 and 36 is that the analogs have at least one histidine residue, or at least two histidine residues, respectively. The Office alleged that the specification does not adequately describe such synthetic analogs. Without conceding the correctness of the assertion, and to advance prosecution, claim 26 has been amended to recite methods that comprise preparing a synthetic analog of a parent human growth hormone releasing hormone (SEQ ID NO:8) by replacing at least one glutamine residue at position 16, 30, 31, or 36 of the parent human growth hormone releasing hormone with a histidine residue. Claim 29 has been amended to recite methods of claim 26 in which the synthetic analog is prepared by replacing the glutamine residues at positions 31 and 36 of the parent human growth hormone releasing hormone with histidine residues. Claim 36 has been amended to recite methods comprising preparing a synthetic analog of a parent human growth hormone releasing hormone (SEQ ID NO:8) by replacing at least two glutamine residues at positions 16, 24, 30, 31, or 36 of the parent human growth hormone releasing

hormone with histidine residues. Finally, claim 37 has been amended to recite methods of claim 36 in which the synthetic analog is prepared by replacing the glutamine residues at positions 16, 24, 30, and 31 of the parent human growth hormone releasing hormone with histidine residues. Support for the amendments is found throughout the specification as originally filed, including, for example, page 8, lines 9 to 17, page 13, lines 20 to 29, and example 3 at page 18, line 22 to page 19, line 6. Upon review of the specification, those skilled in the art would appreciate that applicant was in possession of the subject matter recited in the amended claims at the time the application was filed. Applicant accordingly, respectfully requests withdrawal of the rejection.

Alleged Lack of Enablement

Claims 26 and 29 to 43 have been rejected under 35 U.S.C. § 112, first paragraph for alleged lack of enablement. The Office concedes that the specification is enabling for methods using polypeptides of SEQ ID NO:8 having the glutamine residue at position 16, 24, 30, 31, and/or 36 replaced with a histidine residue and having growth hormone releasing hormone activity, but asserts that the specification does not enable methods using any synthetic analog of human growth hormone releasing hormone, as allegedly encompassed by the claims. Without conceding the correctness of the assertion, and to advance prosecution, as discussed above, claim 26 has been amended to recite methods that comprise preparing a synthetic analog of a parent human growth hormone releasing hormone (SEQ ID NO:8) by replacing at least one glutamine residue at position 16, 30, 31, or 36 of the parent human growth hormone releasing hormone with a histidine residue, and claim 36 has been amended to recite methods comprising preparing a synthetic analog of a parent human growth hormone releasing hormone (SEQ ID NO:8) by replacing at least two glutamine residues at positions 16, 24, 30, 31, or 36 of the parent human growth hormone releasing hormone with histidine residue. Since the specification enables those skilled in the art to make and use the full scope of the subject matter recited in the amended claims, applicant respectfully requests withdrawal of the rejection.

Alleged Anticipation

Claims 26, 34 to 36, 42, and 43 have been rejected under 35 U.S.C. § 102(b) as allegedly anticipated by Chien, *et al.*, *J. Pharm Sci*, 1989, 78, 376-383 (“the Chien article”). Applicant respectfully requests reconsideration and withdrawal of the rejection because the Chien article fails to teach or suggest every limitation of the amended claims. For example, amended claim 26 recites methods that comprise preparing a synthetic analog of a parent human growth hormone releasing hormone (SEQ ID NO:8) by replacing at least one glutamine residue at position 16, 30, 31, or 36 of the parent human growth hormone releasing hormone with a histidine residue. Amended claim 36 recites methods that comprise preparing a synthetic analog of a parent human growth hormone releasing hormone (SEQ ID NO:8) by replacing at least two glutamine residues at positions 16, 24, 30, 31, or 36 of the parent human growth hormone releasing hormone with histidine residues. The Chien article fails to describe such methods. Rather, the article describes the administration of insulin to hairless rats using a transdermal periodic iontopherapeutic system (page 380, second column to page 381). The Chien article thus fails to teach or suggest methods that involve preparing synthetic analogs of human growth hormone releasing hormone (SEQ ID NO:8), much less preparing analogs by replacing at least one glutamine residue at position 16, 30, 31, or 36 of human growth hormone releasing hormone with a histidine residue or replacing at least two glutamine residues at positions 16, 24, 30, 31, or 36 with histidine residues. The Chien article thus fails to anticipate the claimed subject matter, and applicant accordingly, respectfully requests withdrawal of the rejection.

Alleged Obviousness

Claims 26, 31 to 36, and 39 to 43 have been rejected under 35 U.S.C. § 103(a) as allegedly obvious over Kumar, *et al.*, *Proc Intern Symp Control Rel Bioact Mater* 17, 1990, 435-436 (“the Kumar article”) in view of U.S. Patent No. 5,494,679 (“the Sage patent”), U.S. Patent No. 5,494, 679 (“the Vale patent”) and Voet, *et al.*, *Biochemistry*, 1990, John Wiley and Sons, New York (“the Voet text”).¹ Applicant respectfully requests reconsideration and withdrawal of the rejection because the cited references fail to teach or suggest every

¹ The rejection also appears to be based on Green, *et al.*, *Pharmaceutical Res* 8, 1991, 1121-1127, although this article is not initially mentioned in the Office action as a basis for the rejection.

limitation of the amended claims. As discussed above, amended claim 26 recites methods that comprise preparing a synthetic analog of a parent human growth hormone releasing hormone (SEQ ID NO:8) by replacing at least one glutamine residue at position 16, 30, 31, or 36 of the parent human growth hormone releasing hormone with a histidine residue. Amended claim 36 recites methods that comprise preparing a synthetic analog of a parent human growth hormone releasing hormone (SEQ ID NO:8) by replacing at least two glutamine residues at positions 16, 24, 30, 31, or 36 of the parent human growth hormone releasing hormone with histidine residues. The cited references, when considered individually or in combination, fail to teach or suggest such methods. For example, the references fail to describe or suggest preparing a synthetic analog of human growth hormone releasing hormone (SEQ ID NO:8) by replacing at least one glutamine residue at position 16, 30, 31, or 36 of the polypeptide with a histidine residue. Moreover, the references also fail to describe or suggest preparing a synthetic analog of human growth hormone releasing hormone (SEQ ID NO:8) by replacing at least two glutamine residues at positions 16, 24, 30, 31, or 36 of the polypeptide with histidine residues. The claimed subject matter would therefore not have been obvious to those skilled in the art at the time the invention was made, and applicant accordingly, respectfully requests withdrawal of the rejection.

DOCKET NO.: ALZA-0879 (ARC2179CON)
Application No.: 10/016,403
Office Action Dated: November 8, 2006

PATENT

Conclusion

Applicant believes that the foregoing constitutes a complete and full response to the Office Action of record. An early and favorable action is therefore respectfully requested.

Respectfully submitted,

Date: December 29, 2006

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